AMENDMENTS TO THE CLAIMS:

Please cancel claims 23 and 24 without prejudice or disclaimer of their subject matter, amend claims 14, 15, 19-21, and 25, and add new claims 27-35, as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-13. (Canceled)

14. (Currently Amended) A method of executing a neural network in a speech recognition system for recognizing speech of an input speech signal organized into a series of frames, comprising:

evaluating a distance between non-consecutive frames and selectively skipping [[the]] a run of the neural network in correspondence [[of]] to at least one frame between said non-consecutive frames; and

calculating said distance as a distance between output likelihoods of said neural network.

15. (Currently Amended) The method according to claim 14, further comprising ~~the steps of~~:

a) buffering a plurality of input frames;

b) defining an interval corresponding initially to a main interval of frames delimited by a first and a second non-consecutive buffered frames;

c) calculating, by means of said neural network, a first and a second likelihood corresponding to ~~the~~ frames delimiting said interval;

d) calculating a distance between said first and said second likelihoods;

e) comparing said distance with a ~~predetermined~~ threshold value and, in case said distance is lower than said threshold value, calculating by interpolation between said first and said second likelihoods, ~~the likelihood or likelihoods~~ at least one likelihood corresponding to ~~the frame or frames~~ at least one frame within said interval, or, in case said distance is greater than said threshold value, calculating, by means of said neural network, at least one other likelihood corresponding to ~~[[a]]~~ at least one other frame within said interval; and

f) applying recursively said steps c) to e) to each interval present as a sub-interval within said main interval containing at least one frame whose likelihood has not been yet calculated, until all the likelihoods corresponding to the frames in said main interval have been calculated.

16. (Previously Presented) The method as claimed in claim 15, wherein said interpolation is a linear interpolation.

17. (Previously Presented) The method as claimed in claim 15, wherein said main interval of frames comprises said plurality of buffered input frames.

18. (Previously Presented) The method as claimed in claim 15, wherein said likelihoods are probability distributions.

19. (Currently Amended) The method as claimed in claim 18, wherein said distance between said first and said second likelihoods is calculated as a symmetric Kullback distance between probability distributions.

20. (Currently Amended) The method as claimed in claim 15, wherein said threshold value is comprised of a fuzzy set.

21. (Currently Amended) The method as claimed in claim 20, wherein said fuzzy set has a domain corresponding to [[the]] a percentage of output units of said neural network used by [[the]] a current phonetic variability.

22. (Previously Presented) The method as claimed in claim 21, wherein said fuzzy set is a linear segmented decreasing function.

23-24. (Canceled)

25. (Currently Amended) A speech recognition system for recognizing speech of an input speech signal, ~~according to the method of any one of claims 14-22,~~ comprising:

a neural network for calculating likelihoods corresponding to frames of said input speech signal, comprising:

a buffer for storing a plurality of input frames;

a distance evaluation unit for calculating a distance between a first and a second likelihood, said first and second likelihoods being obtained by means of said neural network and corresponding to a first and a second non-consecutive buffered frames;

a comparing unit for comparing said distance with a predetermined threshold value; and

an interpolation unit for calculating, in case said distance is lower than said threshold value, the likelihood or likelihoods corresponding to the frame or frames between said first and second non-consecutive buffered frames.

26. (Previously Presented) The speech recognition system according to claim 25, wherein said buffer is a lookahead buffer.

27. (New) A computer-readable medium for use on a computing system, the computer-readable medium including computer-executable instructions for performing a method of executing a neural network in a speech recognition system for recognizing speech of an input speech signal organized into a series of frames, the method comprising:

evaluating a distance between non-consecutive frames and selectively skipping a run of the neural network in correspondence to at least one frame between said non-consecutive frames; and calculating said distance as a distance between output likelihoods of said neural network.

28. (New) The computer-readable medium of claim 27, wherein the method further comprises:

a) buffering a plurality of input frames;

b) defining an interval corresponding initially to a main interval of frames delimited by a first and a second non-consecutive buffered frames;

c) calculating, by means of said neural network, a first and a second likelihood corresponding to frames delimiting said interval;

d) calculating a distance between said first and said second likelihoods;

e) comparing said distance with a threshold value and, in case said distance is lower than said threshold value, calculating by interpolation between said first and said second likelihoods, at least one likelihood corresponding to at least one frame within said interval, or, in case said distance is greater than said threshold value, calculating, by means of said neural network, at least one other likelihood corresponding to at least one other frame within said interval; and

f) applying recursively said steps c) to e) to each interval present as a sub-interval within said main interval containing at least one frame whose likelihood has not been yet

calculated, until all the likelihoods corresponding to the frames in said main interval have been calculated.

29. (New) The computer-readable medium of claim 28, wherein said interpolation is a linear interpolation.

30. (New) The computer-readable medium of claim 28, wherein said main interval of frames comprises said plurality of buffered input frames.

31. (New) The computer-readable medium of claim 28, wherein said likelihoods are probability distributions.

32. (New) The computer-readable medium of claim 31, wherein said distance between said first and said second likelihoods is calculated as a symmetric Kullback distance between probability distributions.

33. (New) The computer-readable medium of claim 28, wherein said threshold value is comprised of a fuzzy set.

34. (New) The computer-readable medium of claim 33, wherein said fuzzy set has a domain corresponding to a percentage of output units of said neural network used by a current phonetic variability.

35. (New) The computer-readable medium of claim 34, wherein said fuzzy set is a linear segmented decreasing function.